



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO. 05/749,822	FILING DATE 11/21/97	HORNG FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. EH/3242
-------------------------------	-------------------------	----------------------------	--------------------------------

BACON AND THOMAS
625 SLATERS LANE
4TH FLOOR
ALEXANDRIA VA 22314

QMS1/0201

MOSES, D	EXAMINER
----------	----------

ART UNIT 3745	PAPER NUMBER
------------------	--------------

DATE MAILED: 02/01/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/954,822

Applicant(s)
Ching-Shen Horng

Examiner
Daniel Moses

Group Art Unit
3746



☒ Responsive to communication(s) filed on Oct 21, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-7 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-7 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 3746

DETAILED ACTION

Drawings

The drawings filed with the application are acceptable as formal drawings. No corrections are necessary. Form PTO 948 is attached for reference.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horng (5,093,599). Horng teaches a positioning device for a motor comprising a plurality of annularly spaced poles (3 and 4), each having a stem and an arcuate section (see Figure 1, reference numbers 5 and 21), each stem having a winding (21) thereround, each said arcuate section having a first edge and a second edge (see Figure 4, one edge is at the first pole (3) and the second edge

Art Unit: 3746

is at the second pole (4)); a circuit board (6) securely connected to the coil seat and including a sensor element (61) mounted thereon (note here that the examiner cites reference by Baines which teaches that a Hall effect sensor can be in the form of an integrated circuit - see abstract by Baines); the sensor element being located on a vertical line extending from one of the first end edge and the second end edge of one of the poles (see Figure 1 - note that the sensor is on a vertical line which extends between opposite poles of the motor, albeit a parallel line); the pole having first edge aligned with the sensor element has a first mark means (32) formed thereon and the sensor element has a second mark means (vertical side of sensor) formed thereon which is aligned with the first mark means when mounting the sensor element onto the circuit board (see Figures 4 and 7); a groove (27) defined on the circuit board for securely receiving the sensor element, wherein the groove (27) provides a third mark aligned with second mark means of the sensor element (see Figures 4 and 7).

Horng does not teach the importance of using alignment during assembly which ensures a properly functioning device.

Murata teaches a Hall effect sensing device in which the sensor (103, the Hall effect circuit) is located and held in place by frame body (104), thus eliminating the use of jigs during assembly.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the motivation as taught by Murata for the purposes of locating and holding the sensor as taught by Horng, for the purposes of advantageously eliminating the use

Art Unit: 3746

of jigs or fixtures during assembly, which lowers production costs, as well as allowing the positioning accuracy of the respective parts to be increased, which increases reliability.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel E. Moses whose telephone number is (703) 305-0050. The examiner can normally be reached on Monday through Thursday from 7:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe, can be reached on (703) 308-0102. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0863.


DEM

January 12, 1999


CHARLES G. FREAY
PRIMARY EXAMINER